6. Schematic Diagrams

◆ Block Identification of Main PCB - 6-2

6-1 S.M.P.S. - 6-3

6-2 Power Drive - 6-4

6-3 System Control/Servo/Display - 6-5

6-4 Audio/Video - 6-6

6-5 Hi-Fi (Option) - 6-7

6-6 TM - 6-8

6-7 SECAM - 6-9

6-8 A2/NICAM - 6-10

6-9 Input-Output (2 Scart Jack); SV-L620K Only - 6-11

6-10 Input-Output (2 Scart Jack); SV-L80K/L30K Only - 6-12

6-11 Input-Output (RCA Jack) - 6-13

6-12 Sub - 6-14

Note

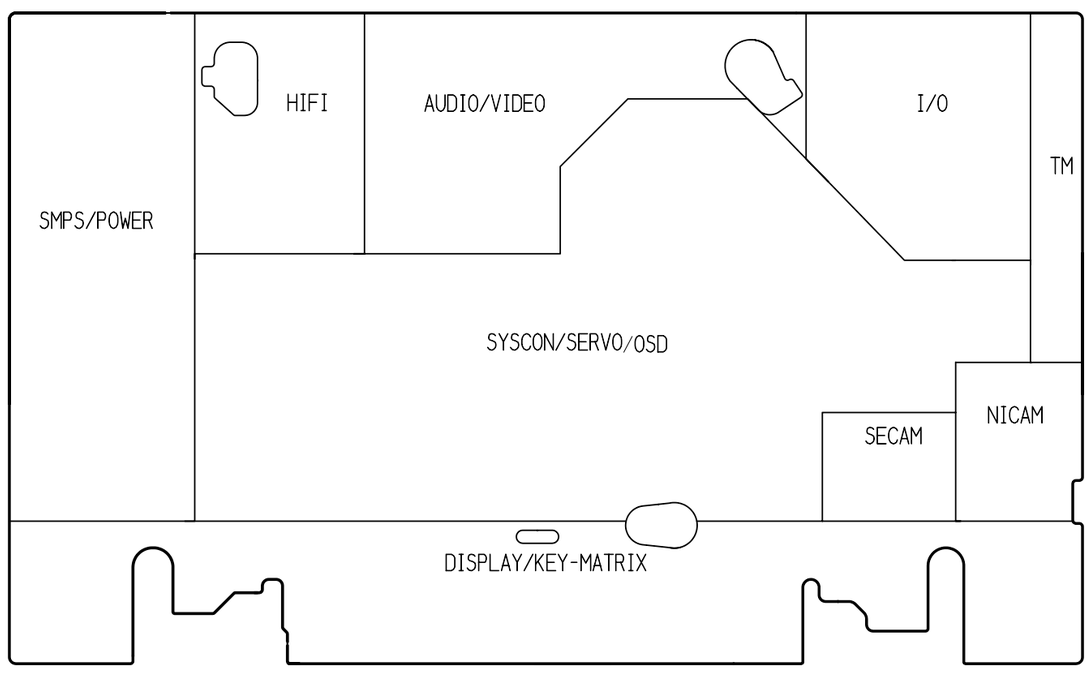
For schematic Diagram
- Resistors are in ohms, 1/8W unless otherwise noted.

Special note :
Most semiconductor devices are electrostatically sensitive and therefore require the special handling techniques described under the "electrostatically sensitive (ES) devices" section of this service manual.

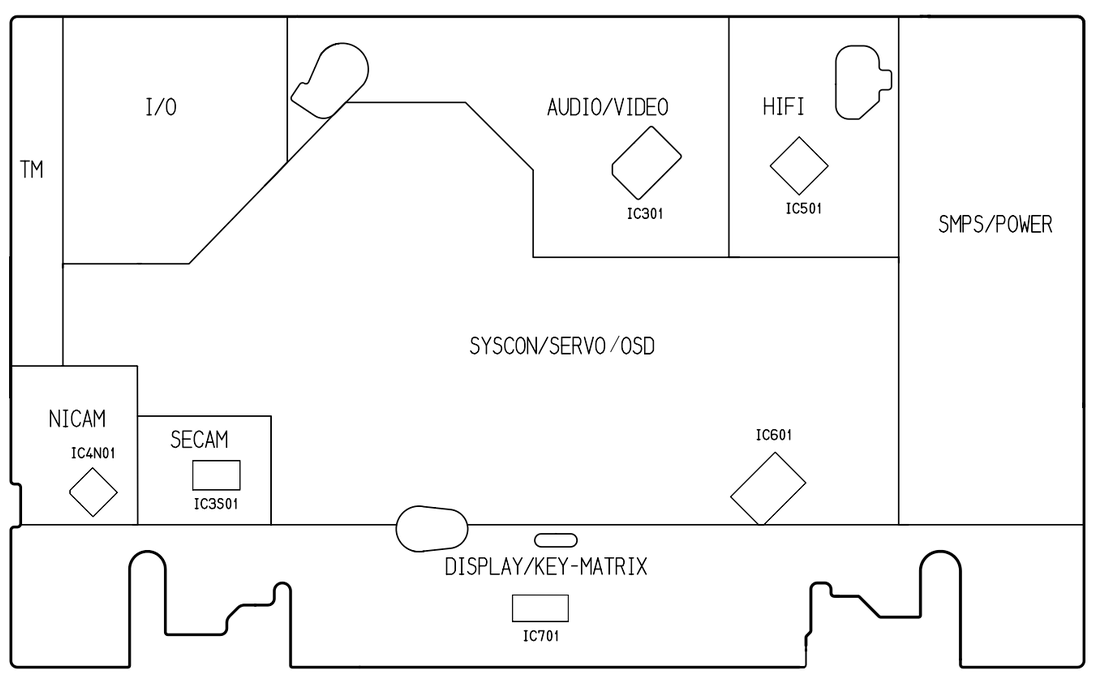
Note :
Do not use the part number shown on this drawing for ordering. The correct part number is shown in the parts list (may be slightly different or amended since this drawing was prepared).

Important safety notices :
Components identified with the mark ⚠ have the special characteristics for safety. When replacing any of these components.
Use only the same type.

◆ Block Identification of Main PCB

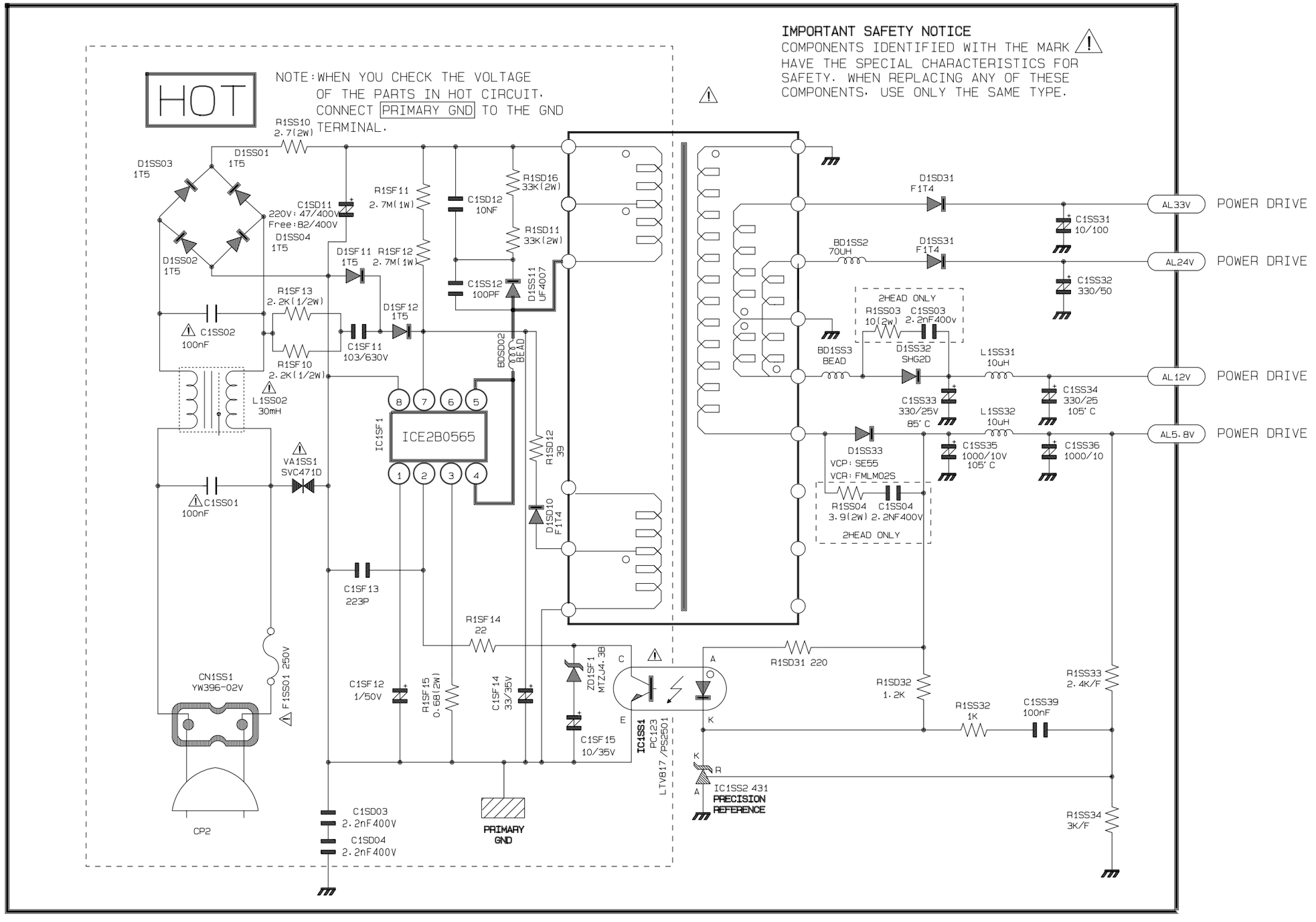


Component Side

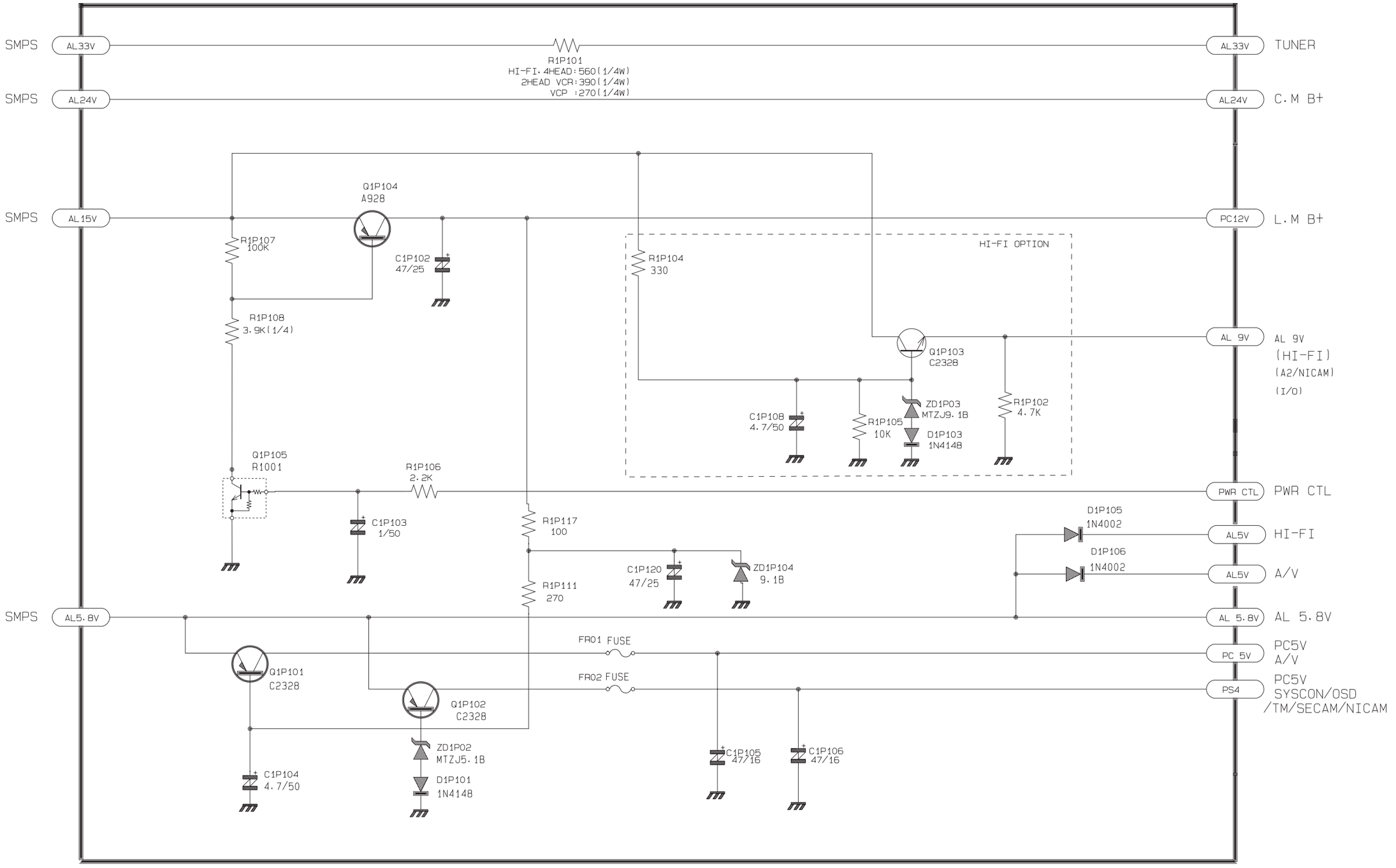


Conductor Side

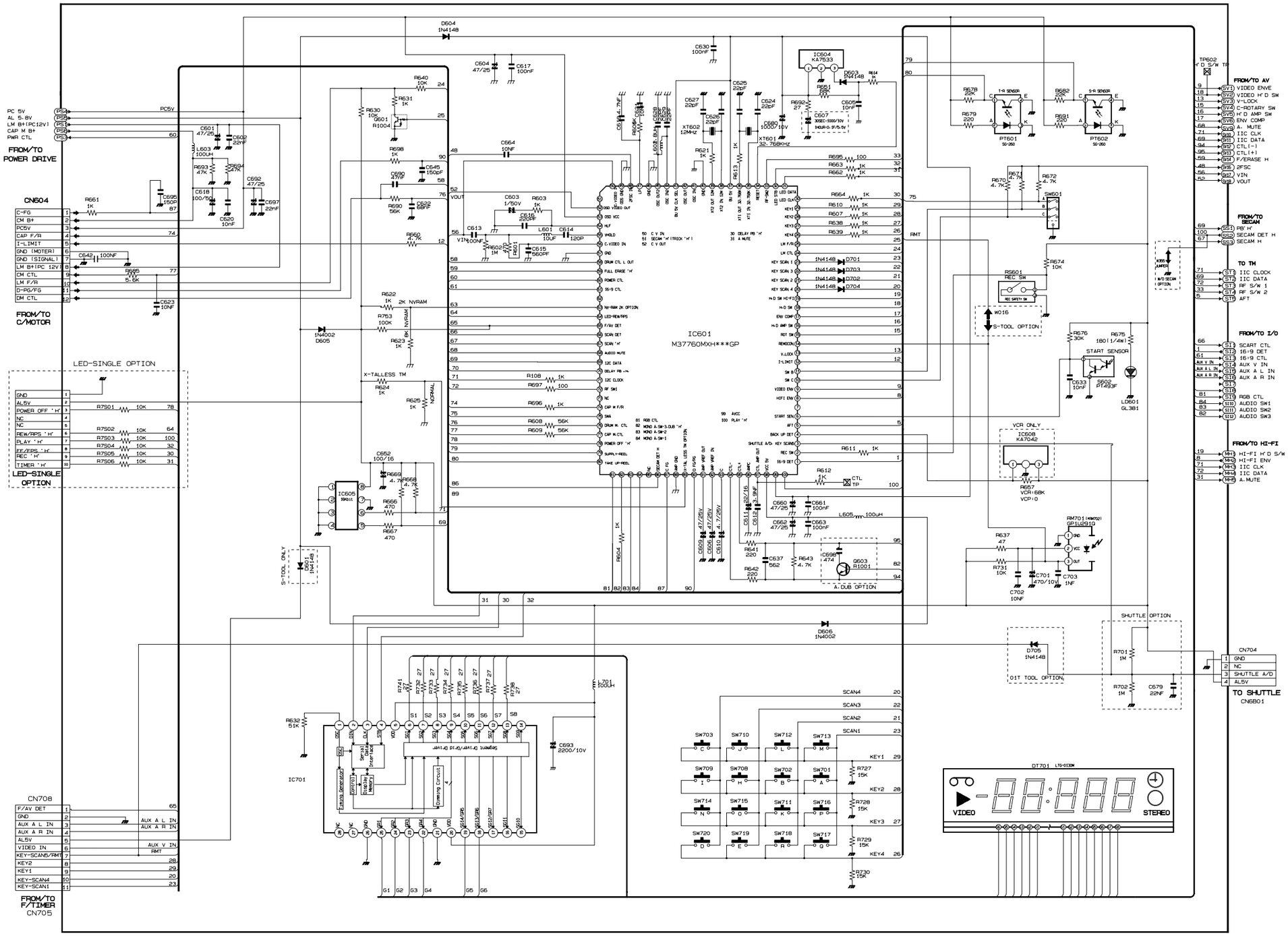
6-1 S.M.P.S.


HOT
NOTE: WHEN YOU CHECK THE VOLTAGE OF THE PARTS IN HOT CIRCUIT, CONNECT PRIMARY GND TO THE GND TERMINAL.
IMPORTANT SAFETY NOTICE
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.
R1SS10 2.7(2W)
D1SS01 1T5
D1SS03 1T5
D1SS02 1T5
D1SS04 1T5
C1SD11 220V: 47/400V Free: 82/400V
R1SF11 2.7M(1W)
D1SF11 1T5
R1SF12 2.7M(1W)
C1SD12 10NF
R1SD16 33K(2W)
R1SD11 33K(2W)
C1SS12 100PF
D1SS11 UF4007
R1SF13 2.2K(1/2W)
D1SF12 1T5
C1SS02 100nF
C1SF11 103/630V
R1SF10 2.2K(1/2W)
L1SS02 30mH
BDSD02 BEAD
IC1SF1
ICE2B0565
R1SD12 39
D1SD10 F1T4
VA1SS1 SVC471D
C1SS01 100nF
C1SF13 223P
R1SF14 22
CN1SS1 YW396-02V
F1SS01 250V
CP2
C1SF12 1/50V
R1SF15 0.68(2W)
C1SF14 33/35V
ZD1SF1 MTZJ4.3B
C1SF15 10/35V
IC1SS1 PC123 LTV817 /PS2501
C1SD03 2.2nF400V
C1SD04 2.2nF400V
PRIMARY GND
D1SD31 F1T4
BD1SS2 70UH
D1SS31 F1T4
2HEAD ONLY
R1SS03 10(2W)
C1SS03 2.2nF400V
BD1SS3 BEAD
D1SS32 SHG2D
C1SS31 10/100
C1SS32 330/50
L1SS31 10uH
C1SS33 330/25V 85' C
L1SS32 10uH
C1SS34 330/25 105' C
D1SS33 VCP: SE55 VCR: FMLM02S
C1SS35 1000/10V 105' C
C1SS36 1000/10
R1SS04 3.9(2W)
C1SS04 2.2NF400V
2HEAD ONLY
AL33V POWER DRIVE
AL24V POWER DRIVE
AL12V POWER DRIVE
AL5.8V POWER DRIVE
R1SD31 220
R1SD32 1.2K
R1SS32 1K
C1SS39 100nF
R1SS33 2.4K/F
R1SS34 3K/F
IC1SS2 431 PRECISION REFERENCE

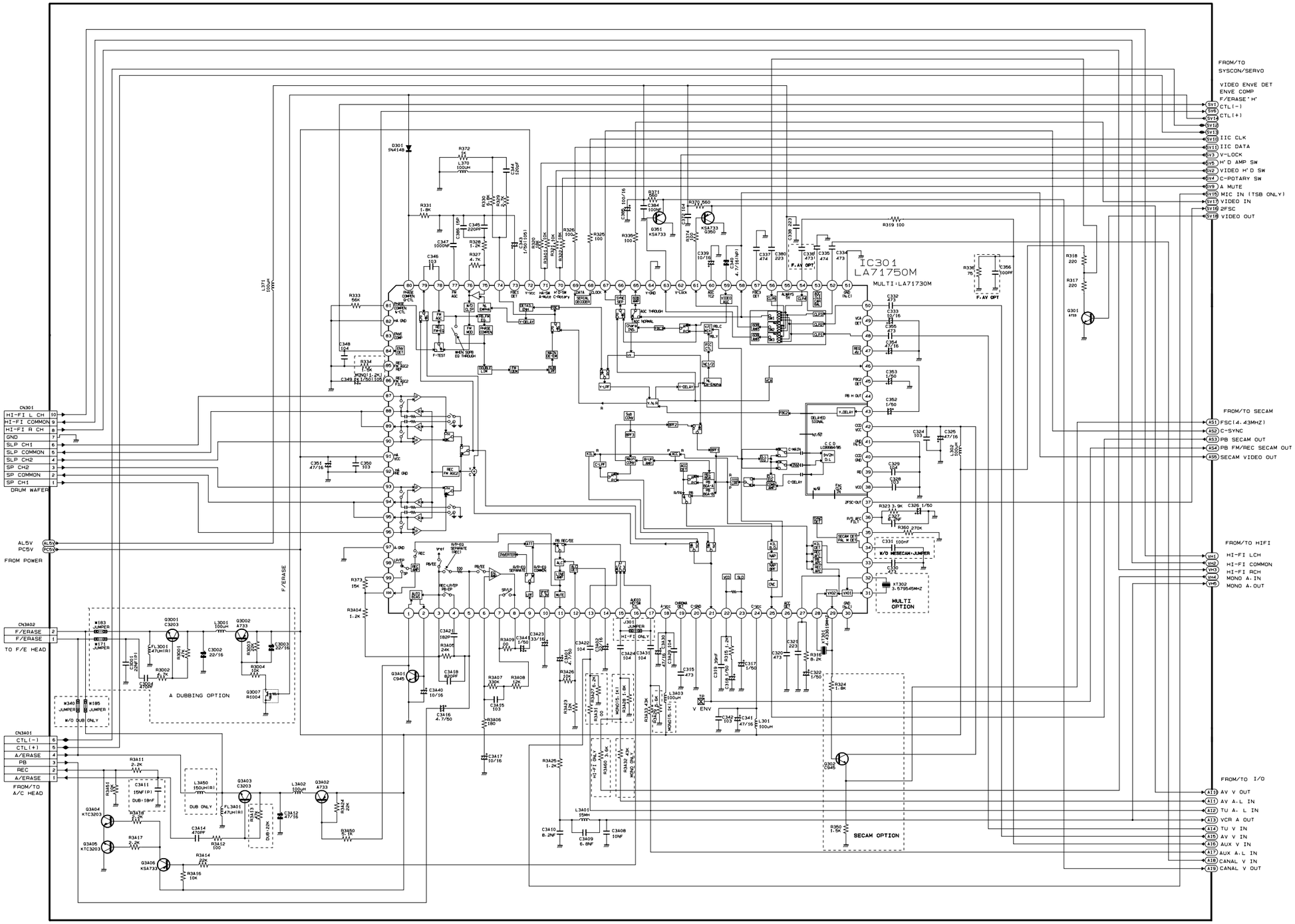
6-2 Power Drive



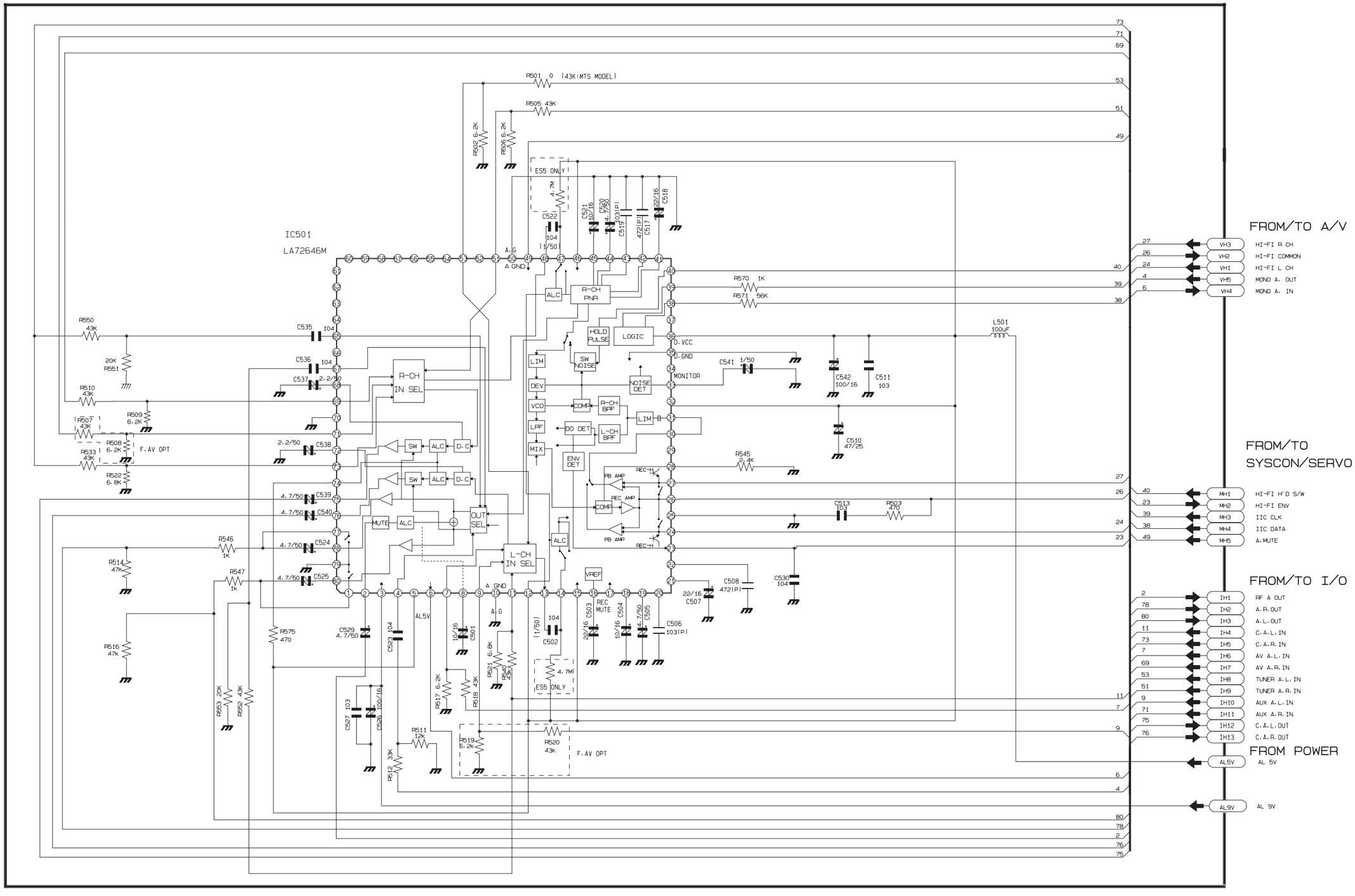
6-3 System Control/Servo/Display



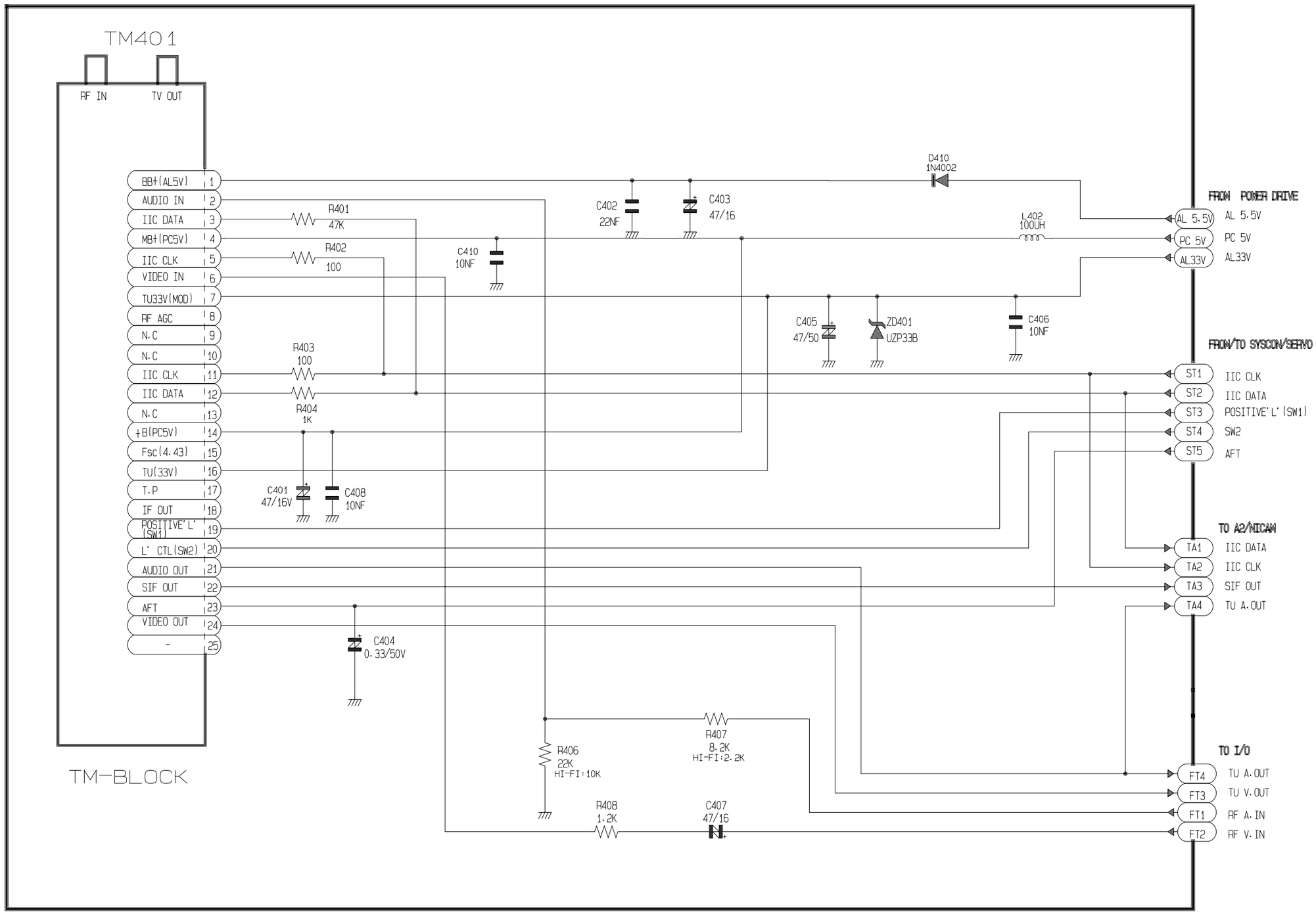
6-4 Audio/Video



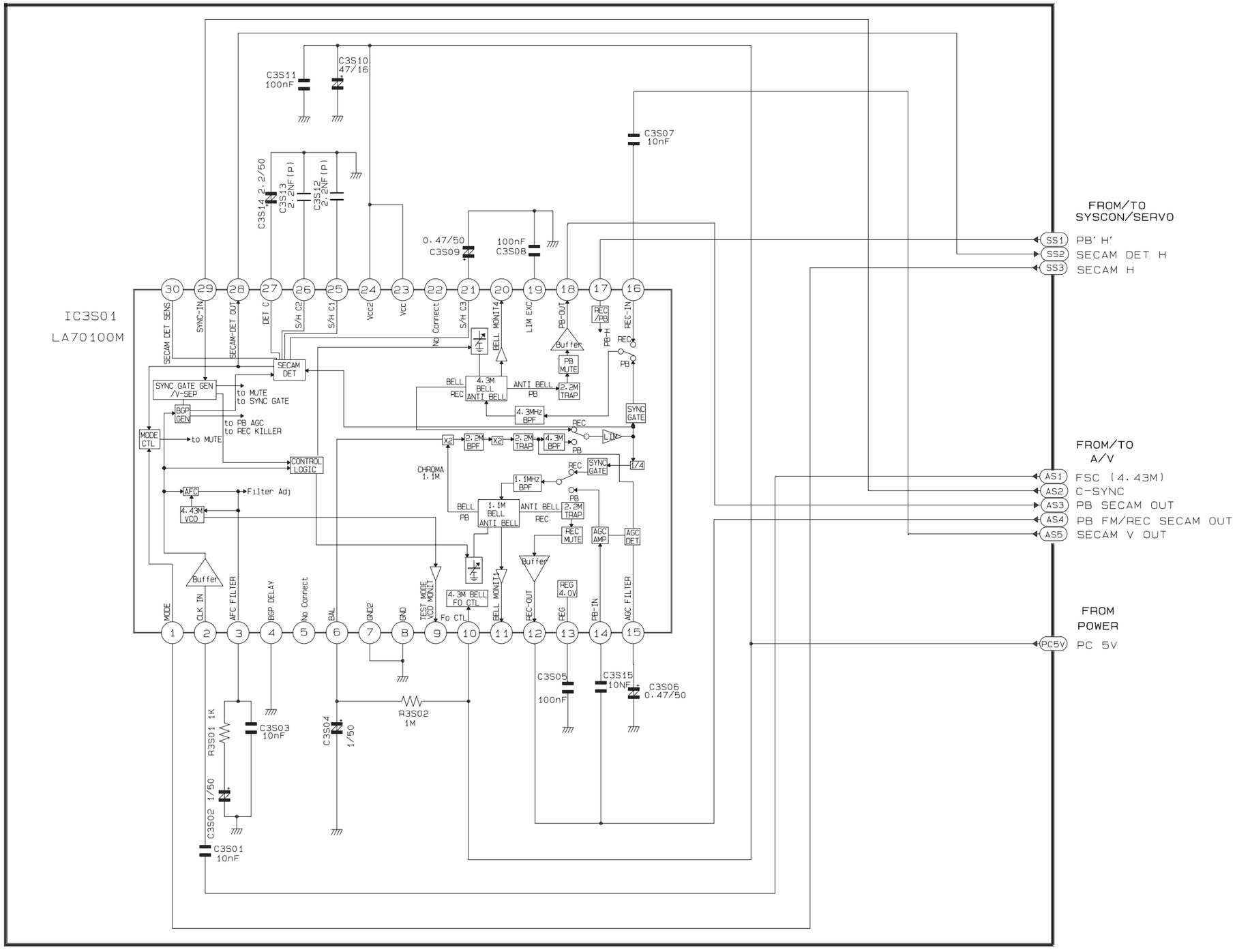
6-5 Hi-Fi (Option)



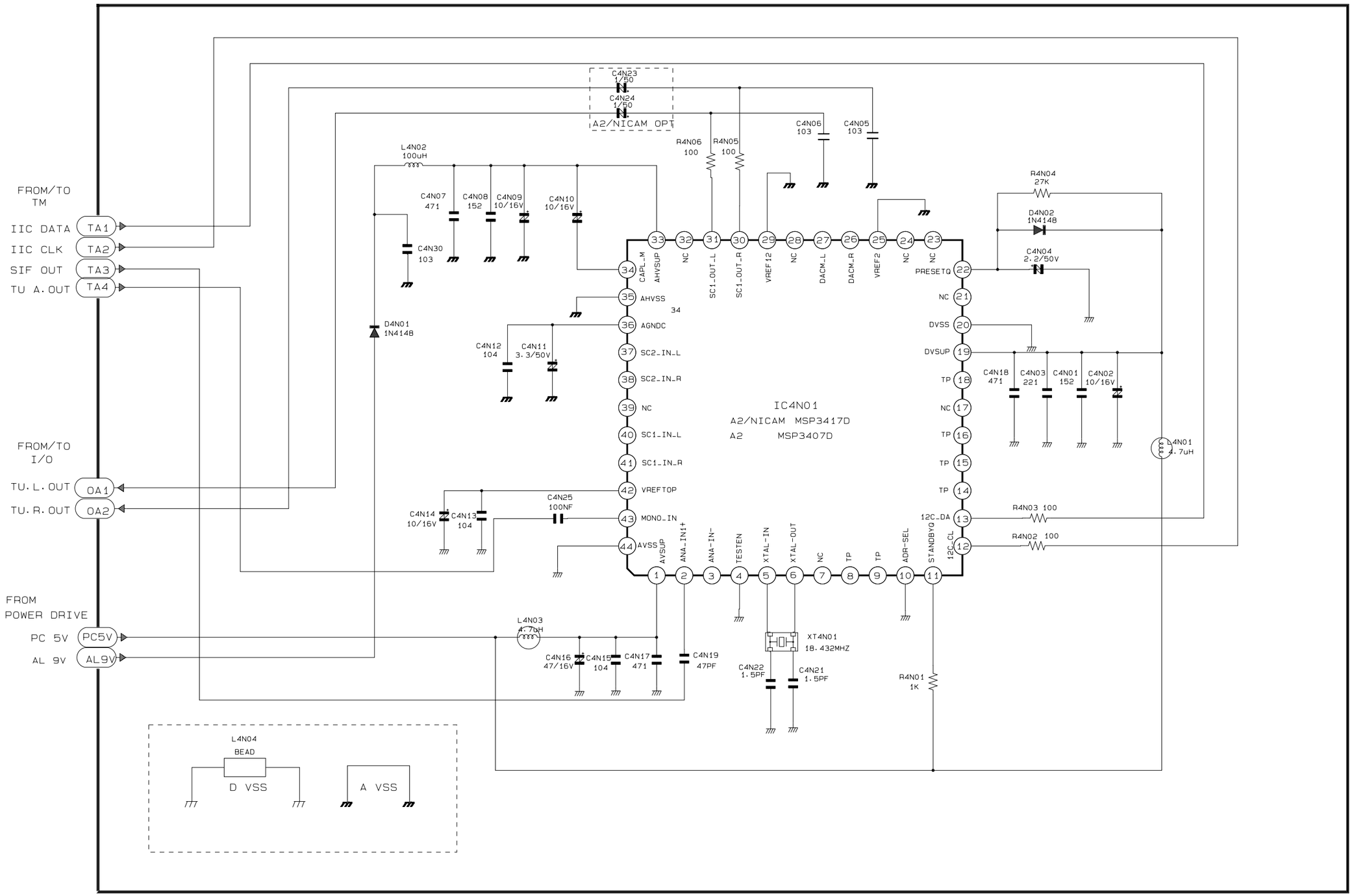
6-6 TM


TM401
RF IN
TV OUT
BB+(AL5V) 1
AUDIO IN 2
IIC DATA 3
MB+(PC5V) 4
IIC CLK 5
VIDEO IN 6
TU33V(MOD) 7
RF AGC 8
N.C 9
N.C 10
IIC CLK 11
IIC DATA 12
N.C 13
+B(PC5V) 14
Fsc(4.43) 15
TU(33V) 16
T.P 17
IF OUT 18
POSITIVE'L' (SW1) 19
L' CTL(SW2) 20
AUDIO OUT 21
SIF OUT 22
AFT 23
VIDEO OUT 24
- 25
R401 47K
R402 100
R403 100
R404 1K
C401 47/16V
C408 10NF
C410 10NF
C402 22NF
C403 47/16
C404 0.33/50V
D410 1N4002
L402 100UH
C405 47/50
ZD401 UZP33B
C406 10NF
R406 22K HI-FI:10K
R407 8.2K HI-FI:2.2K
R408 1.2K
C407 47/16
TM-BLOCK
FROM POWER DRIVE
AL 5.5V
PC 5V
AL33V
FROM/TO SYSCON/SERVO
ST1 IIC CLK
ST2 IIC DATA
ST3 POSITIVE'L'(SW1)
ST4 SW2
ST5 AFT
TO A2/NICAM
TA1 IIC DATA
TA2 IIC CLK
TA3 SIF OUT
TA4 TU A.OUT
TO I/O
FT4 TU A.OUT
FT3 TU V.OUT
FT1 RF A.IN
FT2 RF V.IN

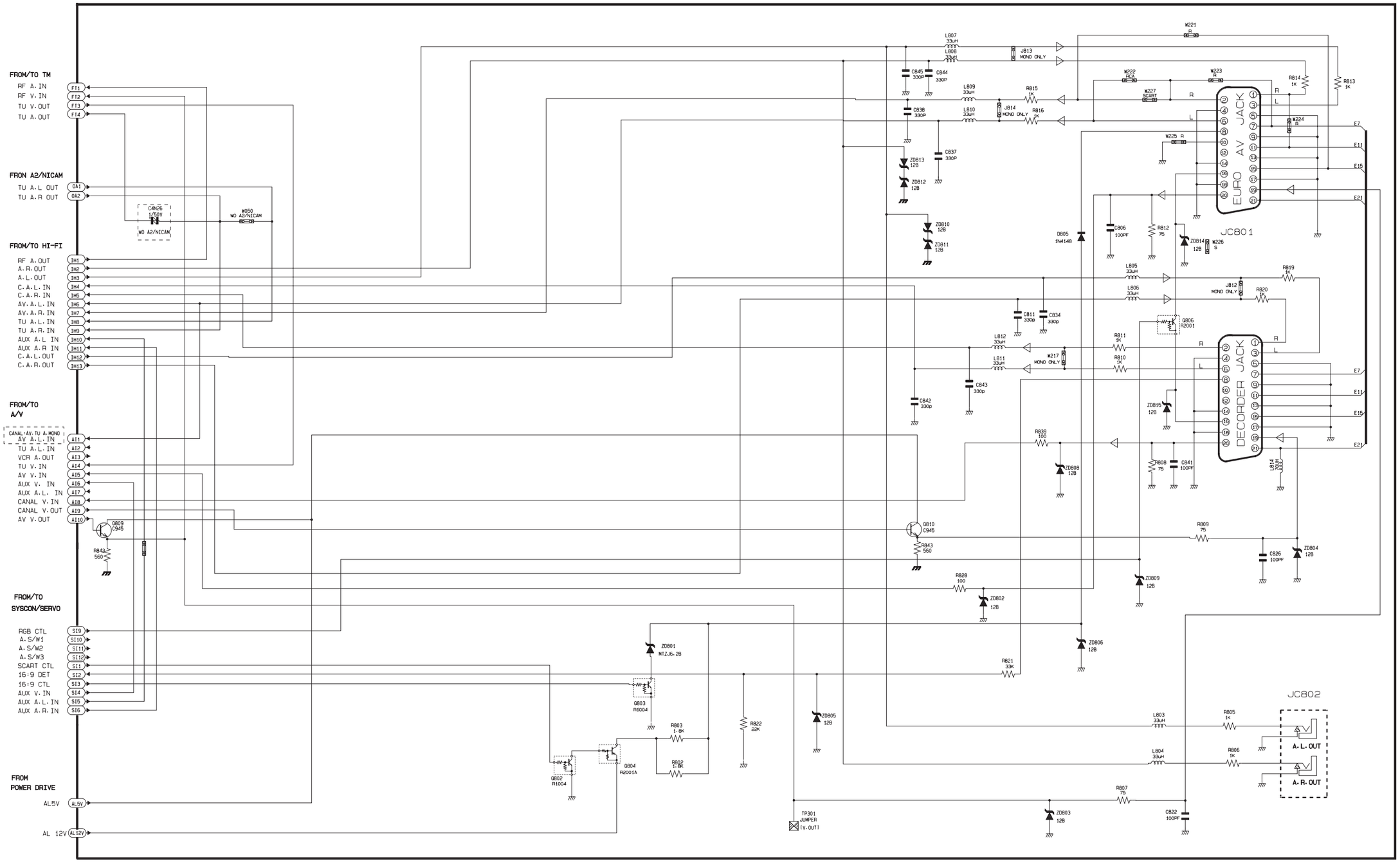
6-7 SECAM


IC3S01
LA70100M
C3S11 100nF
C3S10 47/16
C3S07 10nF
C3S14 2.2/50
C3S13 2.2NF(P)
C3S12 2.2NF(P)
0.47/50 C3S09
100nF C3S08
30 SECAM DET SENS
29 SYNC-IN
28 SECAM-DET OUT
27 DET C
26 S/H C2
25 S/H C1
24 Vcc2
23 Vcc
22 No Connect
21 S/H C3
20 BELL MONIT
19 LIM EXC
18 PB-OUT
17 REC/PB
16 REC-IN
SECAM DET
SYNC GATE GEN /V-SEP
to MUTE
to SYNC GATE
BGP GEN
to PB AGC
to REC KILLER
MODE CTL
to MUTE
CONTROL LOGIC
AFC
Filter Adj
4.43M VCO
Buffer
4.3M BELL ANTI BELL
BELL REC
ANTI BELL PB
2.2M TRAP
4.3MHz BPF
Buffer
PB MUTE
REC
PB
SYNC GATE
LIM
X2
2.2M BPF
X2
2.2M TRAP
4.3M BPF
PB
CHROMA 1.1M
1.1MHz BPF
REC
SYNC GATE
1/4
PB
1.1M BELL ANTI BELL
BELL PB
ANTI BELL REC
2.2M TRAP
REC MUTE
AGC AMP
AGC DET
Buffer
4.3M BELL FO CTL
REG 4.0V
1 MODE
2 CLK IN
3 AFC FILTER
4 BGP DELAY
5 No Connect
6 BAL
7 GND2
8 GND
9 TEST MODE VCO MONIT
10 Fo CTL
11 BELL MONIT
12 REC-OUT
13 REG
14 PB-IN
15 AGC FILTER
R3S01 1K
C3S03 10nF
C3S02 1/50
C3S01 10nF
C3S04 1/50
R3S02 1M
C3S05 100nF
C3S15 10NF
C3S06 0.47/50
FROM/TO SYSCON/SERVO
SS1 PB' H'
SS2 SECAM DET H
SS3 SECAM H
FROM/TO A/V
AS1 FSC (4.43M)
AS2 C-SYNC
AS3 PB SECAM OUT
AS4 PB FM/REC SECAM OUT
AS5 SECAM V OUT
FROM POWER
PC5V PC 5V

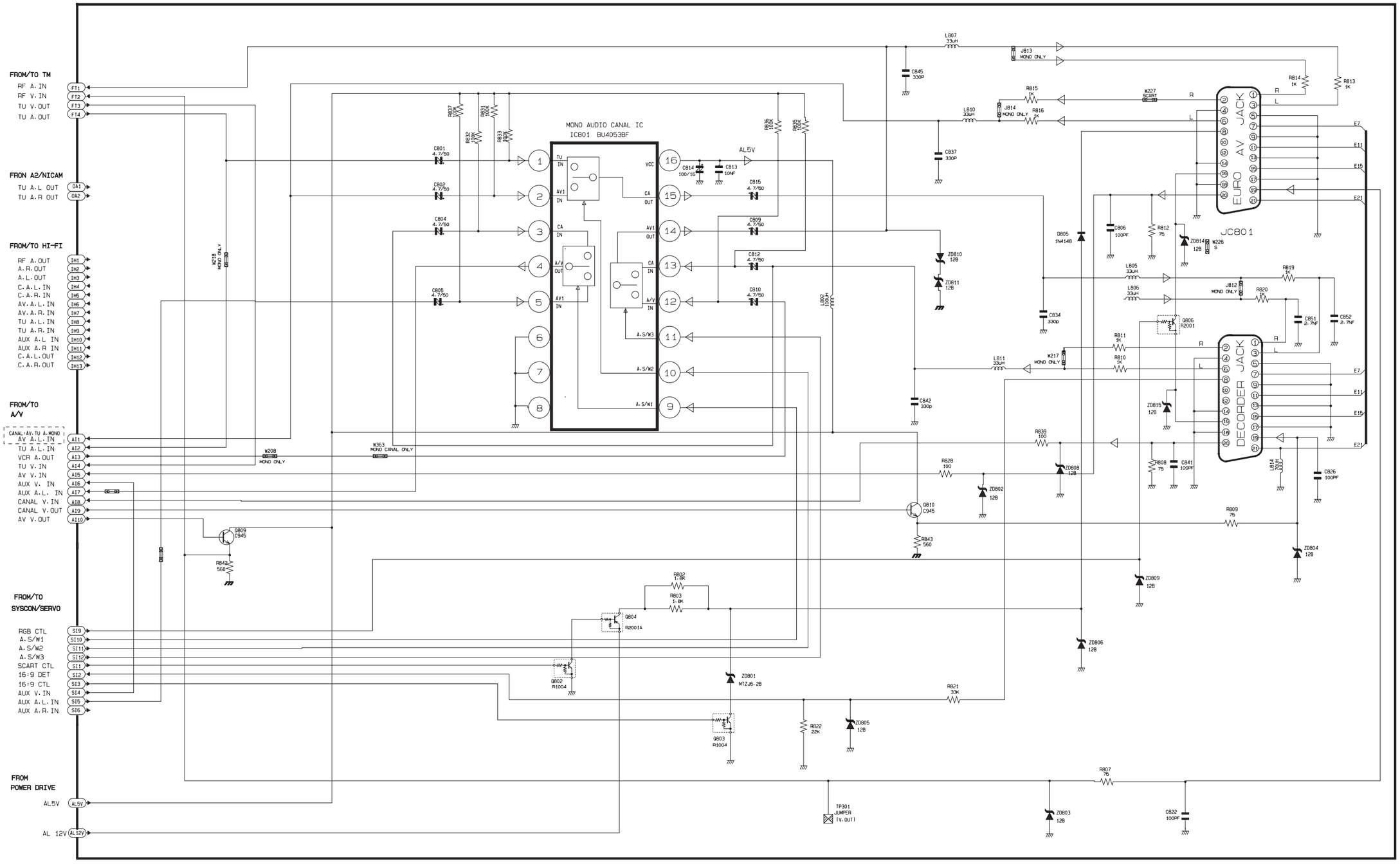
6-8 A2/NICAM


FROM/TO TM
IIC DATA
IIC CLK
SIF OUT
TU A.OUT
TA1
TA2
TA3
TA4
FROM/TO I/O
TU.L.OUT
TU.R.OUT
OA1
OA2
FROM POWER DRIVE
PC 5V
AL 9V
PC5V
AL9V
C4N23 1/50
C4N24 1/50
A2/NICAM OPT
L4N02 100uH
R4N06 100
R4N05 100
C4N06 103
C4N05 103
C4N07 471
C4N08 152
C4N09 10/16V
C4N10 10/16V
C4N30 103
D4N01 1N4148
C4N12 104
C4N11 3.3/50V
C4N25 100NF
C4N14 10/16V
C4N13 104
L4N03 4.7uH
C4N16 47/16V
C4N15 104
C4N17 471
C4N19 47PF
L4N04 BEAD
D VSS
A VSS
IC4N01
A2/NICAM MSP3417D
A2 MSP3407D
33 CAPL_M
32 AHVSUP
31 NC
30 SC1_OUT_L
29 SC1_OUT_R
28 VREF12
27 NC
26 DACM_L
25 DACM_R
24 VREF2
23 NC
22 NC
34 AHVSS
35 AGNDC
36 SC2_IN_L
37 SC2_IN_R
38 NC
39 SC1_IN_L
40 SC1_IN_R
41 VREFTOP
42 MONO_IN
43 AVSS
44
1 AVSUP
2 ANA_IN1+
3 ANA-IN-
4 TESTEN
5 XTAL-IN
6 XTAL-OUT
7 NC
8 TP
9 TP
10 ADR-SEL
11 STANDBYQ
12 I2C_CL
13 I2C_DA
14 TP
15 TP
16 TP
17 NC
18 TP
19 DVSUP
20 DVSS
21 NC
22 PRESETQ
R4N04 27K
D4N02 1N4148
C4N04 2.2/50V
C4N18 471
C4N03 221
C4N01 152
C4N02 10/16V
L4N01 4.7uH
R4N03 100
R4N02 100
XT4N01 18.432MHZ
C4N22 1.5PF
C4N21 1.5PF
R4N01 1K

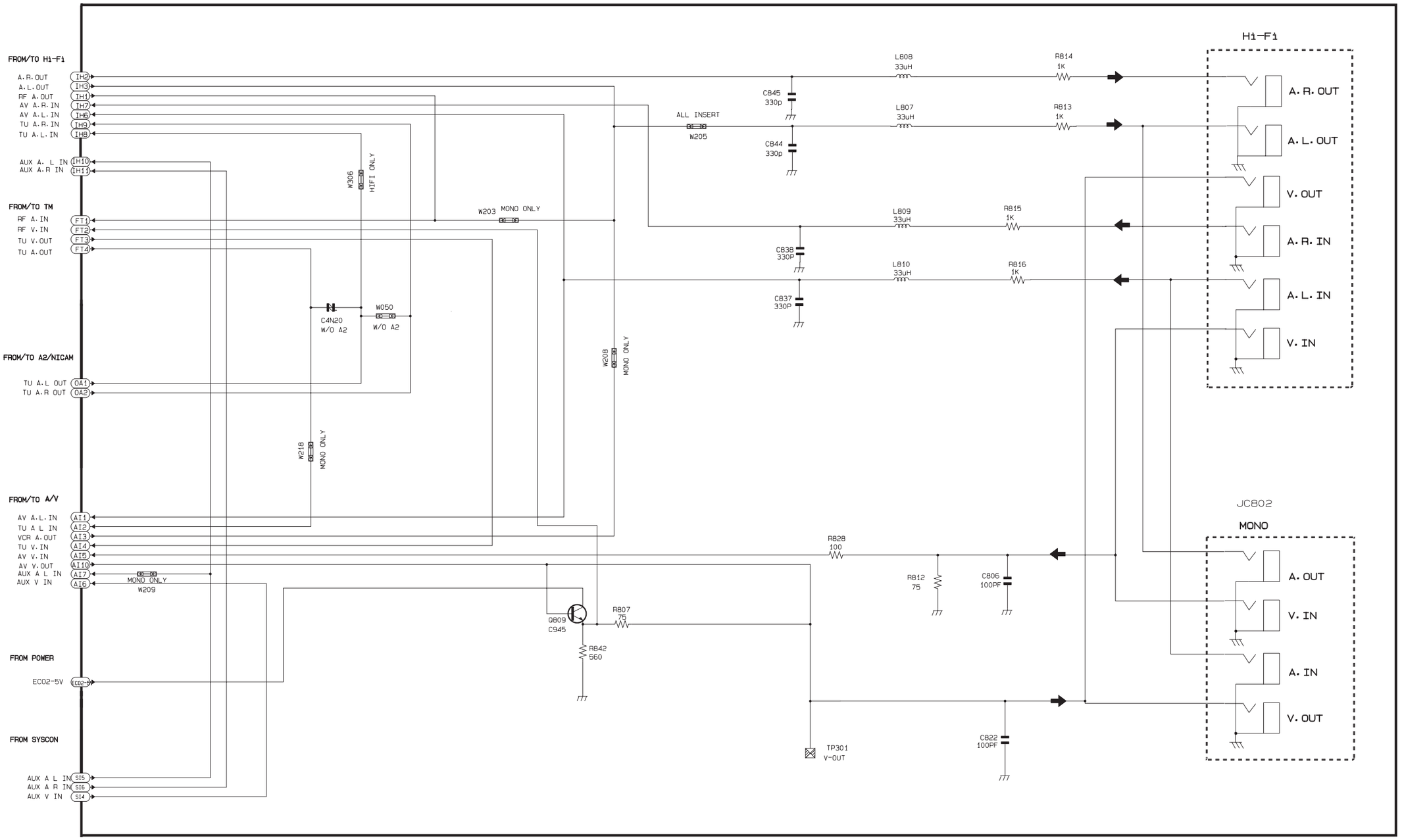
6-9 Input-Output (2 Scart Jack); SV-L620K Only



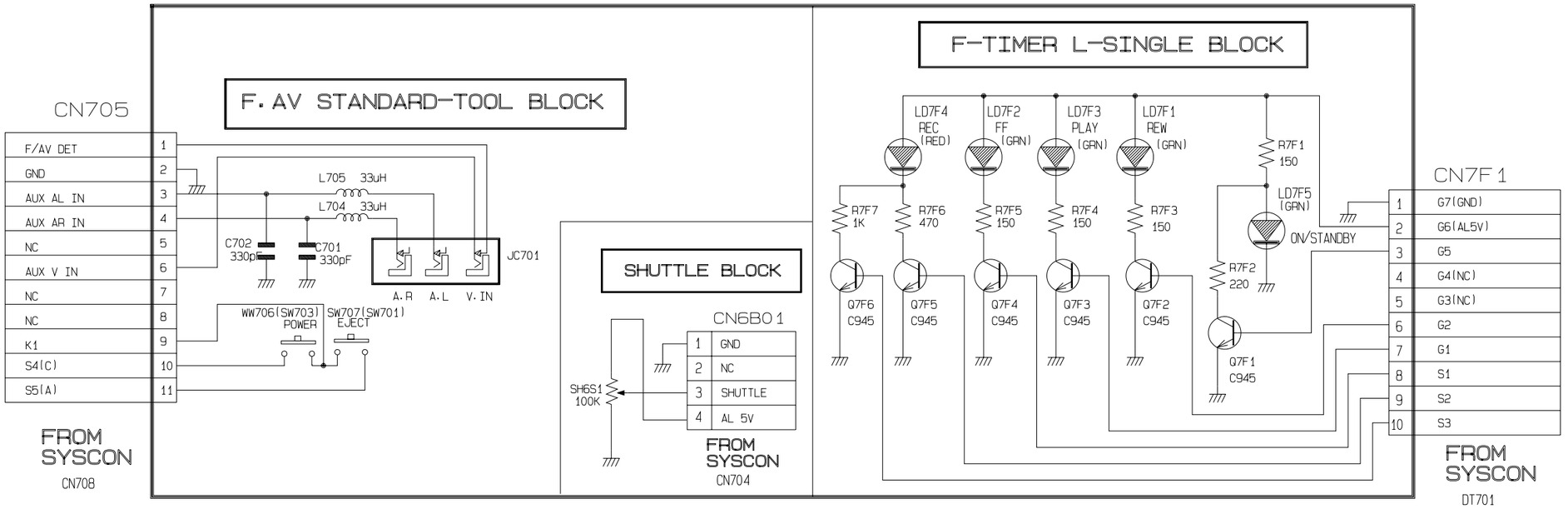
6-10 Input-Output (2 Scart Jack); SV-L80K/L30K Only



6-11 Input-Output (RCA Jack)



6-12 Sub


F. AV STANDARD-TOOL BLOCK
CN705
F/AV DET 1
GND 2
AUX AL IN 3
AUX AR IN 4
NC 5
AUX V IN 6
NC 7
NC 8
K1 9
S4(C) 10
S5(A) 11
FROM SYSCON
CN708
L705 33uH
L704 33uH
C702 330pF
C701 330pF
JC701
A.R A.L V.IN
WW706(SW703) POWER
SW707(SW701) EJECT
SHUTTLE BLOCK
CN6801
SH6S1 100K
1 GND
2 NC
3 SHUTTLE
4 AL 5V
FROM SYSCON
CN704
F-TIMER L-SINGLE BLOCK
LD7F4 REC (RED)
LD7F2 FF (GRN)
LD7F3 PLAY (GRN)
LD7F1 REW (GRN)
R7F1 150
LD7F5 (GRN)
ON/STANDBY
R7F2 220
Q7F1 C945
R7F7 1K
R7F6 470
R7F5 150
R7F4 150
R7F3 150
Q7F6 C945
Q7F5 C945
Q7F4 C945
Q7F3 C945
Q7F2 C945
CN7F1
1 G7(GND)
2 G6(AL5V)
3 G5
4 G4(NC)
5 G3(NC)
6 G2
7 G1
8 S1
9 S2
10 S3
FROM SYSCON
DT701